

Art Unit: 2829

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SD

09/15/04

Claim 1 (currently amended) A testing method for semiconductor integrated circuits ~~wherein,~~
~~in the said~~ testing method testing by a semiconductor testing apparatus having a
comparison judgment circuit judging a semiconductor integrated circuit integrated with a
plurality of DA converters and a base voltage generation circuit determining the gradation output
voltage characteristics, by comparison of the gradation output voltages of the semiconductor
integrated circuit and reference voltages, wherein comprising:

deciding the gradation level intervals to be the test objects are decided by the
setting of different voltages to be applied at the base power supply input terminals of said
base voltage generation circuit; and

supplying said gradation output voltages are supplied at and between said
voltages applied to said base power supply input terminals from said semiconductor
testing apparatus; and

based on a by assigning correspondence between the input gradation data signals
of the gradation levels ~~of that for a gradation level interval~~, and the gradation output
voltages, testing the gradation output voltage testing through said semiconductor testing
apparatus is made to be by making a digital judgment.

Claim 2 (currently amended) A testing method for semiconductor integrated circuits according
to claim 1, wherein,

according to the gradation output voltages provided at and between the voltages applied
to said base power supply input terminals from said semiconductor testing apparatus, said base
voltage generation circuit increases or decreases the neighboring gradation output potential
differences of every analog voltage output of said semiconductor integrated circuit.

Claim 3 (previously presented) A testing method for semiconductor integrated circuits according to claim 1, wherein,

by assigning correspondence between the voltage settings provided from said semiconductor testing apparatus and the input data, said DA converters and the base voltage generation circuit selectively test the output levels of the analog voltage outputs.

Claim 4 (currently amended) A testing method for semiconductor integrated circuits according to claim 1, wherein,

~~proving of the reliability of the test accuracy is made possible is accomplished~~ by treating the mutual relationship between the computation of the input data corresponding to every output voltage level and of the expectation values of the output voltages in the semiconductor integrated circuit specification and the setting of the output voltage expectation value levels, and the voltage judgment value levels of said comparison judgment circuit carrying out the judgment of the output voltages, and

the change of the setting of the test numbers with time, altogether as address or parameter management.

CLAIMS 5 THROUGH 14 ARE CANCELLED